Agenda
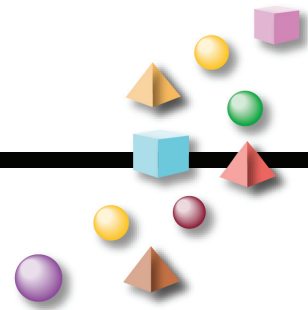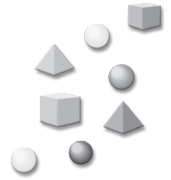
Thursday, September 21, 2006 — Methods, Toolkits, and Techniques

8:30–10:30 — Model Performance Optimization Techniques
Chair and Discussant: Nicholson Collier, Argonne National Laboratory and PantaRei Corp., nick.collier@gmail.com

- Breeding Faster Turtles: Progress towards a NetLogo Compiler
  Forrest Sondahl, Seth Tisue, and Uri Wilensky, Northwestern University, forrest@northwestern.edu

- Dynamic Agent Compression
  Stephen Wendel and Catherine Dibble, University of Maryland, swendel@umd.edu

- Polyagents Model Multiple Futures Concurrently
  H. Van Dyke Parunak and Sven Brueckner, NewVectors LLC, van.parunak@newvectors.net

- Who's Your Neighbor? Neighbor Identification for Agent-based Modeling
  Charles Macal, Argonne National Laboratory and The University of Chicago, macal@anl.gov
  Thomas Howe, Argonne National Laboratory

10:45–12:15 — Advanced Modeling Methods
Chair and Discussant: Kathy Simunich, Argonne National Laboratory, simunich@anl.gov

- Machine Learning Meets Agent-based Modeling: When Not to Go to a Bar
  William Rand, Northwestern University, wrand@northwestern.edu

- Real-Time Evolutionary Agent Characterization and Prediction
  H. Van Dyke Parunak, Sven Brueckner, Robert Matthews, John Sauter, and Steve Brophy, NewVectors LLC, van.parunak@newvectors.net

- Agent-based Meta-Models
  Miles Parker, Argonne National Laboratory, milesparker@gmail.com
  Michael North, Argonne National Laboratory and The University of Chicago
  Nick Collier, Argonne National Laboratory and PantaRei Corp.
  Thomas Howe, Argonne National Laboratory
  Jerry Vos, Argonne National Laboratory and the University of Illinois at Urbana-Champaign

12:15–1:30 — Lunch

1:30–2:30 — Invited Speaker
Chair and Discussant: Michael North, Argonne National Laboratory and The University of Chicago, north@anl.gov

- Designing Agent-based Modeling Environments to Promote Restructuring of Scientific Representation and Education
  Uri Wilensky, Northwestern University, uri@ccl.northwestern.edu
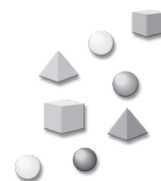
2:45–4:15 — Repast Toolkit Developments
Chair and Discussant: William Rand, Northwestern University, wrand@northwestern.edu

- An Introduction to Repast Modeling Using a Simple Predator-Prey Example
  Eric Tatara, Argonne National Laboratory
  Michael North, Argonne National Laboratory and The University of Chicago, north@anl.gov
  Thomas Howe, Argonne National Laboratory
  Nick Collier, Argonne National Laboratory and PantaRei Corp.
  Jerry Vos, Argonne National Laboratory and the University of Illinois at Urbana-Champaign

- Legacy Model Integration with Repast Simphony
  Michael North, Argonne National Laboratory and The University of Chicago, north@anl.gov
  Pam Sydelko, Argonne National Laboratory
  Jerry Vos, Argonne National Laboratory and the University of Illinois at Urbana-Champaign
  Thomas Howe, Argonne National Laboratory
  Nick Collier, Argonne National Laboratory and PantaRei Corp.

- Containing Agents: Contexts, Projections, and Agents
  Thomas Howe, Argonne National Laboratory, trhowe@anl.gov
  Nick Collier, Argonne National Laboratory and PantaRei Corp.
  Michael North, Argonne National Laboratory and The University of Chicago
  Miles Parker, Argonne National Laboratory
  Jerry Vos, Argonne National Laboratory and the University of Illinois at Urbana-Champaign

4:30–5:30 — Domain-Support Methods
Chair and Discussant: Roger Burkhart, Deere & Company, BurkhartRogerM@JohnDeere.com

- Information Resonance
  Philip Barry and Matthew Koehler, MITRE Corporation, mkoehler@mitre.org

- Exploring Cities Using Agent-based Models and GIS
  Andrew Crooks, University College London, andrewcrooks@ucl.ac.uk

Friday, September 22, 2006 — Computational Social Theory

8:30–9:30 — Invited Speaker
Chair and Discussant: David L. Sallach, Argonne National Laboratory and The University of Chicago, sallach@anl.gov

- It's as Simple as ABC: Agent-based Culture
  Scott E. Page, University of Michigan, spage@umich.edu

9:45–11:45 — Addressing Agent Complexities
Chair and Discussant: Miles Parker, Argonne National Laboratory, milesparker@gmail.com

- Modeling Agent Emotions
  H. Van Dyke Parunak, Robert Bisson, Sven Brueckner, Robert Matthews, and John Sauter, NewVectors LLC, van.parunak@newvectors.net

- Voluntary Exchange in Interpretive Heatbugs
  Jonathan Ozik and David L. Sallach, Argonne National Laboratory and The University of Chicago, sallach@anl.gov

- The Semantics of Emergent Urban Centers
  Robert G. Reynolds and Patrick Franzel, Wayne State University, robertreynolds@comcast.net

- Exploratory Modeling of Ensembles for Testing Decision Theory Paradigms
  Lawrence A. Kuznar, Indiana University and Purdue University, kuznar@ipfw.edu

11:45–1:15 — Lunch

1:15–2:45 — Simulating Social Games
Chair and Discussant: Jonathan Ozik, Argonne National Laboratory and The University of Chicago, jozik@anl.gov

- Game Theory and Agent-based Modeling in Models of Mass Politics
  Daniel Diermeier, Northwestern University, d-diermeier@kellogg.northwestern.edu

- Idealization, Uncertainty, and Heterogeneity: Game Frameworks Defined with Formal Concept Analysis
  Mihai Racovitan, Northern Illinois University, racovita@math.niu.edu
  David L. Sallach, Argonne National Laboratory and The University of Chicago

- Complex Multigames: Toward an Ecology of Interaction Artifacts
  David L. Sallach, Argonne National Laboratory and The University of Chicago, sallach@anl.gov
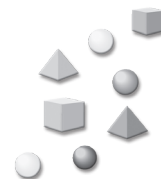
3:00–5:00 — Modeling Organizational Processes

Chair and Discussant: Thomas Howe, Argonne National Laboratory, trhowe@anl.gov

- An Agent-based Approach to Examine the Network Knowledge Advantage in Open Innovation Networks: Firm Openness and Interorganizational Network Performance
  *Juan A. Villarroel, Ecole Polytechnique Fédérale de Lausanne, University of Lausanne,
    and University of Pennsylvania, andrei.villarroel@epfl.ch*
  John E. Taylor, University of Texas at Austin

- Post-Merger Integration of Organizations: A Framework for Representing Agent-based Relationships
  Terrill L. Frantz, Carnegie Mellon University, terrill@cs.cmu.edu

- Towards Generative Activity-based Models for Large-scale Socio-technical Simulations
  *Gabriel Istrate, Anders Hansson, Charles D. Tallman, Leticia Cuellar-Hengartner,
    and Nicholas Hengartner, Los Alamos National Laboratory, hansson@lanl.gov*

- Organizational Case Study: Theory and Mathematical Specifications for an Agent-based Model (ABM)
  William F. Lawless, Paine College, lawlessw@mail.paine.edu
  Joseph Wood, Eisenhower Army Medical Center
  Stephanie Everett and William Kennedy, Naval Research Laboratory

6:00 — Dinner (pay your own way)

Location: Szechwan Restaurant
        625 N. Michigan Avenue
        (enter under the red canopy on Ontario Street, which is east of Michigan Avenue)
        Chicago, IL 60611
        (312) 642-3900

Saturday, September 23, 2006 — Social Simulation Applications

8:30–9:30 — Invited Speaker

Chair and Discussant: Charles Macal, Argonne National Laboratory and The University of Chicago, macal@anl.gov

- From Disasters to WoW: Enabling Communities with Cyberinfrastructure
  Noshir Contractor, University of Illinois at Urbana-Champaign, ncontractor2@gmail.com

9:45–11:45 — National Security

Chair and Discussant: Keven Ruby, The University of Chicago, kruby@uchicago.edu

- Sending Agents to War
  Matthew Koehler, Philip Barry, and Ted Meyer, MITRE Corporation, mkoehler@mitre.org

- Impact of Multiple Intermediaries on Citizen's Attitude Formation in a Synthetic Environment
  Alok R. Chaturvedi, Purdue University, alok@purdue.edu
  Rashmi Chaturvedi and Chee Mun Foong, Simulex, Inc.

- Navigating Political Networks
  Aaron B. Frank, BAE Systems and George Mason University, aaron.frank@baesystems.com
  Michael Lack and David Scherzer, BAE Systems
  Desmond Saunders-Newton, BAE Systems and the University of Southern California

- Simulating Terrorism in a Community
  Matthew W. Drewek and William M. Bulleit, Michigan Tech, mwdrewek@mtu.edu

11:45–1:15 — Lunch

1:15–2:45 — Transportation and Mobility

Chair and Discussant: Roberta Davidson, Argonne National Laboratory, rdavidson@anl.gov

- Using Repast to Develop a Prototype Agent-based Pedestrian Evacuation Model
  Christian J.E. Castle, University College London, c.castle@ucl.ac.uk

- Walkability in Urban Environments: Developing Geographic Agent-based Models of Neighborhood Walkability for Cancer Prevention Researchers
  Reginald D. Tucker-Seeley, G.G. Bennett, and G. Sorensen, Dana Farber Cancer Institute and Harvard School of Public Health, retucker@hsph.harvard.edu

- Used Car Sector Stability in Agent-based Simulations of the Auto Market
  John Sullivan, Craig Stephan, B. Goodman, and M. Everson, Ford Research, jsulliv8@ford.com

3:00–4:30 — Social Ecology

Chair and Discussant: Pamela J. Sydelko, Argonne National Laboratory, psydelko@anl.gov

- Agent-based Modeling of Wildfire Evacuation
  Joshua Thorp, Stephen Guerin, Frank Wimberly, Michelle Rossbach, Owen Densmore, Michael Agar, and Douglas Roberts, RedfishGroup, Stephen.Guerin@Redfish.com

- Exploiting Social Network Properties to Improve the Effects of Intervention on Individual Driver's Behaviour in Applying Child Vehicle Restraint
  Ziad Kobti, Anne Snowdon, Tina Dunlop, and Shamual Rahaman, University of Windsor, kobti@uwindsor.ca

- Strawberry Fields Forever? Developing a Socio-Ecological Game with "Agro-Diversity ver.2" for Exploring Biodiversity Management Issues in Sustainable Agriculture
  Erika Speelman and Luis García-Barrios, El Colegio de la Frontera Sur, lgarcia@sclc.ecosur.mx

4:30 — Conference Adjourns